REMARKS

I. Amendment

Claim 1 has been amended to alter the expression so as to clarify that the claim is directed to the photothermographic material that is sensitive to laser light source having wavelength of 350 nm to 450 nm.

No new matter has been added.

II. Response to Claim Rejection under 35 USC §103(a)

Claims 1-4, 6-7 and 10-19 have been rejected under 35 USC §103(a) as allegedly being unpatentable over the combination of EP 1 168 066 (EP '066), Siga et al (US Patent No. 4,332,889) and Hirabayashi (US 2002/0123016 A1).

Applicant respectfully traverses.

A. There is no motivation to combine Siga with other references

As we have been arguing in our previous responses, there is no motivation to combine the disclosure of Siga with the cited references, namely either EP '066 or Hirabayashi. Siga discloses a post-activation type photothermographic material, which is non-photosensitive under normal lighting conditions and must be heated in order to become photosensitive (activated). In contrast, the photothermographic material of the present invention, along with EP '066 and Hirabayashi, is a conventional type, which requires no pre-heating. A post-activation type photothermographic material is different from a conventional type in terms of image forming mechanism and components. The features of the post-activation type photothermographic material are shown in the attached Exhibit A.

Additionally, the following sentences are cited from Siga in column 2, lines

20-30 in order to further illustrate the differences between post-activation materials and conventional photothermographic materials:

> It is particularly noted that post-activation type dry image forming materials, which are required to be capable of being exposed to or stored under normal lighting conditions substantially without undergoing deterioration in their photographic or sensitometric characteristics, are quite different in conditions of storage and image formation from the wet process photographic material and even common heat-developable dry image forming materials of the already photosensitive type which are never exposed to light prior to use in image formation.

Due to the many differences in image forming mechanism and the components, one of ordinary skill in the art would not have been motivated to combine Siga with either EP '066 or Hirabayashi.

B. Unexpectedly superior results are shown in the specification and the 37 C.F.R. § 1.132 declaration submitted on June 14, 2005

Applicant argued in the Remarks section of January 17, 2006 in response to the Office Action dated August 16, 2005 that unexpectedly superior results are shown in Table 2 on page 257 of the originally-filed specification, comparing Sample Nos. 2, 3, 5 and 6. Whereas Sample Nos. 2 and 3 use silver iodide emulsion (within the claimed range of 40-100 mol% silver iodide content), Sample Nos. 5 and 6 use a silver iodobromide emulsion with silver iodide content of 3.5 mol%. Sample No. 6 containing a silver-saving agent exhibits poor results in terms of unprocessed stock storability and image storability (print-out) compared to Sample No. 5, although Sample No. 6 shows higher (i.e. better) maximum density (Dmax: 4.0) compared to Sample No. 5 (Dmax: 2.7).

On the other hand, Sample No. 3 containing a silver-saving agent exhibits no deterioration and shows unexpectedly superior results in terms of stock storability and image storability (print-out) in addition to good results of Dmax 4.0 compared to Dmax 2.7 of Sample No. 2.

In the Office Action, the Examiner contends that the results shown in Table 2 on page 257 are not persuasive because the shown examples are not commensurate with the scope of the claimed invention (i.e. silver iodide content: 40-100 mol%). The Examiner appears to be arguing that there is insufficient evidence for unexpectedly superior results within the claimed range of silver iodide content of 40-100 mol%.

Applicant respectfully traverses.

The Examiner's attention should be drawn to the 37 C.F.R. § 1.132 declaration submitted on June 14, 2005. The declaration clearly shows unexpectedly superior results obtained in the silver iodide range of 40-100 mol%, by showing the results with silver iodide content of 40 mol%, 45 mol%, 75 mol%, 80 mol%, 85 mol%, 90 mol%, 95 mol% and 100 mol% (and 10 mol% and 35 mol% as comparative examples). Applicant strongly believes that unexpectedly superior results are well established by the declaration with respect to the claimed silver iodide range.

C. Difference between Hirabayashi and the present invention

Hirabayashi relates to photothermographic materials suitable for use in printing plate making (see page 1, [0001]), and the object of the invention disclosed in Hirabayashi is to provide a photothermographic material exhibiting superior halftone dot quality, an enhanced maximum density and superior linearity and forming high contrast images (see page 1, [0006]). Therefore, Hirabayashi discloses a photosensitive material having high Gamma value. Specific examples show samples having Gamma value

(image gradation) within the range of 5.0 to 20.3. The present invention relates to a photothermographic material with image gradation (Gamma value: 2-4) particularly useful for medical diagnosis. Hirabayashi discloses a photothermographic material in a different technology field having high Gamma value, and neither teaches nor suggests the present invention. Moreover, there is no motivation to combine Hirabayashi with EP '066.

III. Conclusion

In view of the above remarks, all the claims pending in the application are believed to be allowable. Early and favorable action is respectfully requested.

Respectfully submitted,

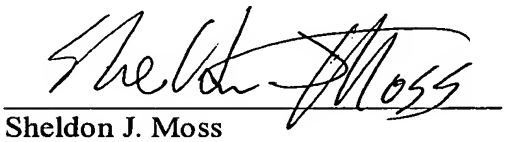

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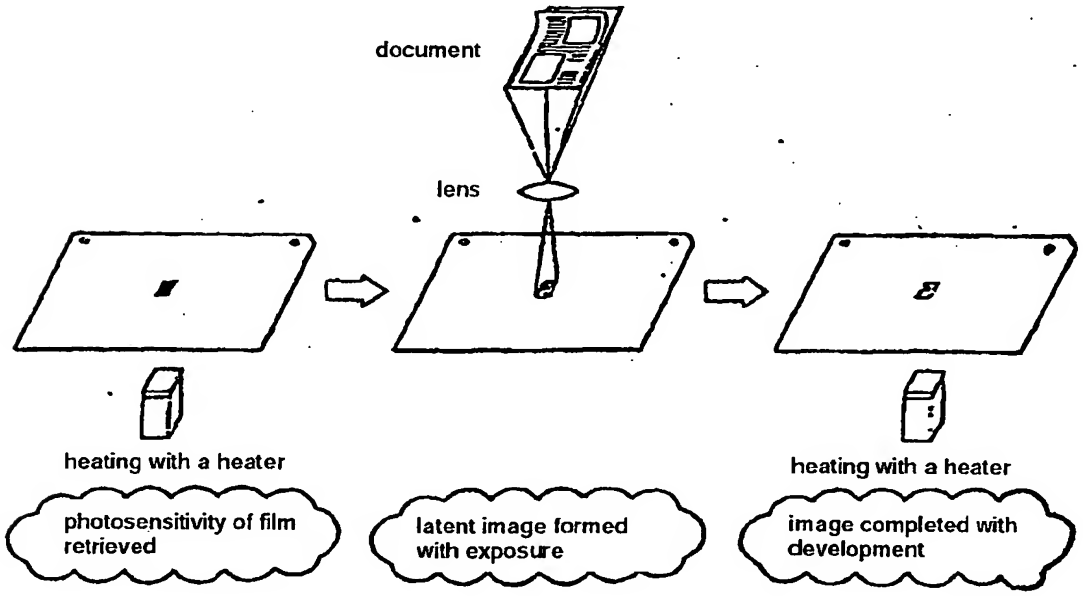
Exhibit A.

Post-activation type (Pre-heating type) photothermographic material[1]

I. IMAGE FORMATION MECHANISM AND FEATURES

- Photosensitivity is retrieved by heating the material
- Photosensitive material can be treated under normal lighting conditions prior to pre-heating



II. COMPONENTS

In a post-activation type photothermographic material that is activated by pre-heating, in addition to ordinary components, included are an appropriate oxidation catalyst which returns a silver latent image nucleus into a silver ion and a photodegradable organic halogen compound which returns the oxidation catalyst in a low oxidation state into a high oxidation state. The oxidation catalyst and photodegradable

[1] Figures and Table are cited from Asahikasei catalogue for Pre-heating type Dry Silver.

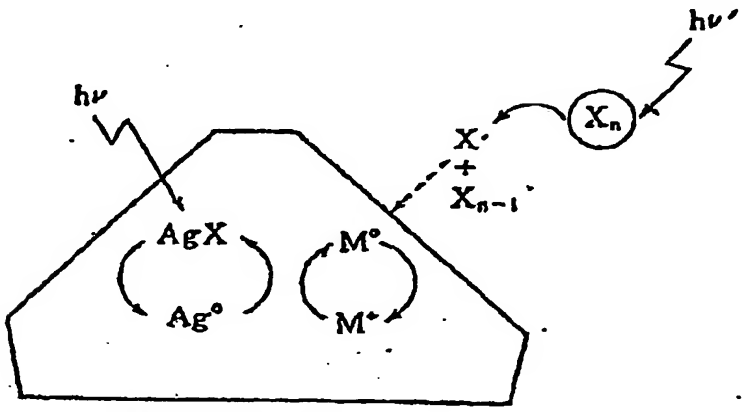
organic halogen compound work when the photosensitive material is handled under normal lighting conditions so as to maintain non-photosensitivity.

The mechanism is shown in the following figure as a model.

In this system, a small amount of oxidation catalyst and a photodegradable organic halogen compound provide a non-photosensitive cycle under light exposure. Even if a photosensitive silver halide crystal exists in a system, non-photosensitivity of the photothermographic material can apparently be maintained as long as this cycle is working and silver halide is returned to its original state.

Table 1 Ordinary components of photosensitive material

Components (representative compound)	Purpose
Silver organic carboxylate (Silver behenate)	Silver image formation
Silver halide (Silver bromoiodide)	Photosensitive sensor
Reducing agent (Hindered phenol)	-
Color controlling agent (Phthalazone)	Silver particle diameter control
Others (Anti-fogging agent, Dye)	-



Non-photosensitive mechanism model under normal lighting conditions

AgX: silver halide
Ag^0: latent image
M: catalyst
X_n: photodegradable organic halogen compound